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Years of Life Wrested from Tuberculosis

ALMOST an entire year has been added to the general average duration of life byour successful battle against tuberculosis within the last decade, that is from 1920 to 1930; about another year's gain stands to the credit of the previous decade. That so much has been accomplished in increased life expectation through attack on a single disease is very remarkable and gratifying indeed.

According to the mortality statistics of the recent census year, 1930, the curtailment of the average length of life due to tuberculosis was just over one year for white persons of either sex. In 1920 it was a little short of two years. Still another decade further back in time it was about three years. The detailed figures for 1920 and 1930 will be found in the accompanying table. They show the number of years of life which would be added to the expectation of life at successive ages, were this disease completely eliminated as a cause of death.

The loss of potential years of life through a given cause depends not only on the degree of the mortality from that cause, but also on the age period at which its effect is concentrated. In this respect tuberculosis is in a particularly unfavorable position, and it is interesting, in studying the situation regarding this disease, to consider it in contrast with organic heart disease, as discussed in this BULLETIN last month. Deaths from tuberculosis occur very largely among young persons or persons at the prime of life. As the result of this, although the deathrate from tuberculosis has fortunately decreased in late years so far as to relegate this cause to the seventh rank among the principal causes of death, yet the number of years of life lost, on the average, is still a relatively important item. Among white persons in the United States in 1930, the average length of life (expectation of life at birth) is shortened by 1.1 years through tuberculosis (all forms). Up to about the twentieth year of life the curtailment of the average remaining after-lifetime by tuberculosis remains nearly the same, irrespective of age, namely, about one year, according to the mortality as of 1930. After this age it falls rapidly. Among white males, for example, the loss of remaining after-lifetime at age 42 is about one-half year, at age 62, only .15 of a year, or less than two months. The situation is strik-

ingly different in the case of heart disease, the figures for which we published last month. There the loss of years of life was nearly the same for all ages up to 52, and only slightly less even at age 62, because heart disease claims most of its victims among persons in or past midlife.

YEARS OF LIFE AND PER CENT. OF REMAINING YEARS OF LIFE LOST THROUGH TUBERCULOSIS (ALL FORMS)

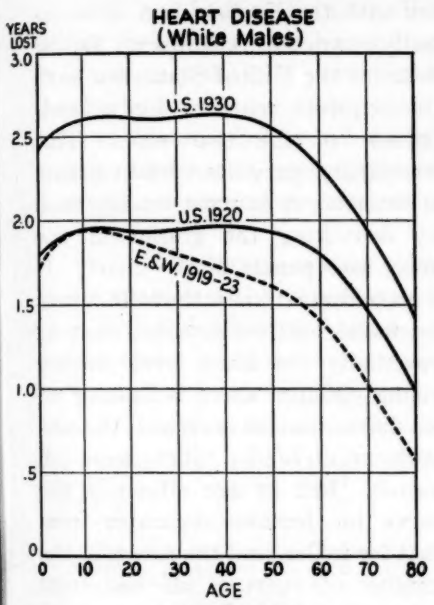
United States Death Registration States of 1920 in 1920 and 1930. White Persons by Sex

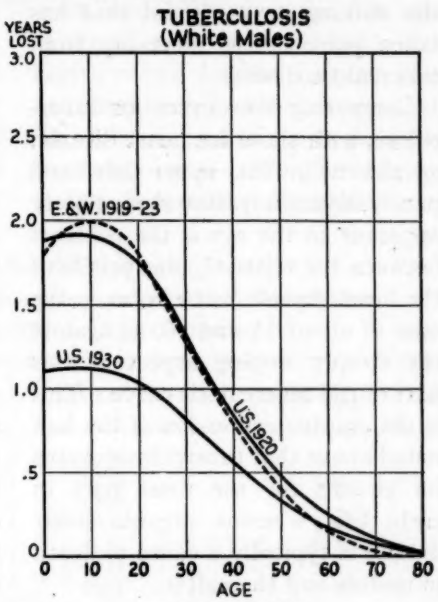
Sex; Year	AGE								
	0	12	22	32	42	52	62	72	82
	YEARS OF LIFE LOST								
Males:									
1920.....	1.87	1.89	1.70	1.19	.76	.43	.22	.09	.02
1930.....	1.10	1.11	1.01	.76	.51	.29	.15	.06	.02
Females:									
1920.....	1.90	1.87	1.48	.88	.51	.30	.17	.07	.02
1930.....	1.09	1.06	.85	.51	.32	.19	.12	.06	.01
	PER CENT. OF REMAINING YEARS OF LIFE								
Males:									
1920.....	3.38	3.66	3.92	3.34	2.71	2.09	1.59	1.06	.42
1930.....	1.85	2.09	2.28	2.12	1.85	1.45	1.11	.72	.42
Females:									
1920.....	3.30	3.55	3.35	2.39	1.75	1.40	1.17	.78	.39
1930.....	1.73	1.89	1.81	1.33	1.07	.87	.81	.67	.20

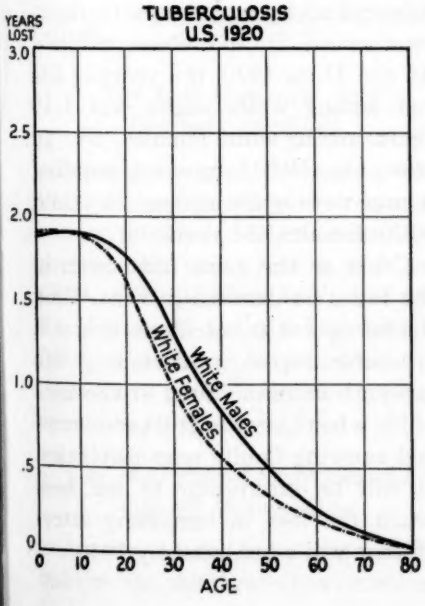
The chart on page 3 is very helpful in presenting the essential facts to the eye. In the upper right-hand panel of this chart are collected together three curves exhibiting the loss of years of life from tuberculosis, according to the mortality in the United States in 1920 and in 1930; and also according to the mortality of England and Wales 1919-1923. The last mentioned curve has been plotted from data published by NOEL KARN in the ANNALS OF EUGENICS (May, 1931, page 308). The interest of this curve, computed by an independent observer for a different population, lies in the close resemblance which it bears to the corresponding curve for the United States at about the same period (1920). The fact that the curve for England and Wales relates to pulmonary tuberculosis alone does not seriously affect the

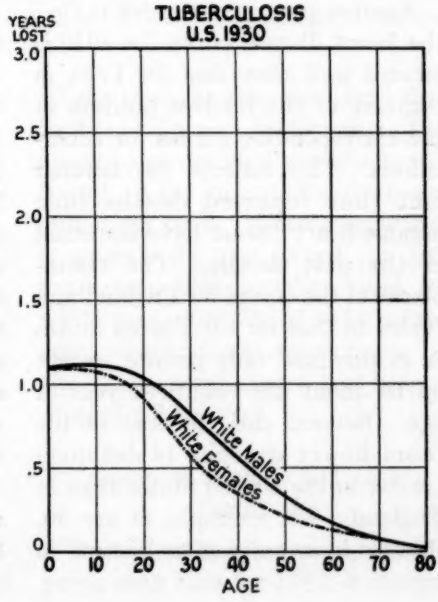
YEARS OF LIFE LOST THROUGH TUBERCULOSIS AND THROUGH HEART DISEASE

United States Death Registration States of 1920, in 1920 and 1930, Also, England and Wales, 1919-1923, Males









comparison, since by far the major part of all deaths from tuberculosis are included under that item.

The curve for 1930 lies well *below* that for 1920, thereby exhibiting the striking improvement that has taken place in the mortality from tuberculous disease.

Comparing the curves for tuberculosis with those for heart disease, as shown in the upper left-hand panel, the main feature immediately apparent to the eye is the contrast between the relatively flat profile of the heart disease curve between the ages of about 15 and 50, as against the steeply sloping aspect of this part of the tuberculosis curve. This is the graphic expression of the fact noted above that tuberculosis claims its victims for the most part in early life, whereas organic heart disease is typically a cause of death in midlife and thereafter.

Another point to be noted is that the heart disease curve for 1930 is located well *above* that for 1920, in contrast to the relative position of the corresponding curves for tuberculosis. This reflects the familiar fact that reported deaths from organic heart disease have increased in the past decade. The resemblance of the curves for England and Wales to that for the United States is, in this case, only remote, except up to about the twentieth year of age. Beyond this the loss of life from heart disease is definitely greater in the United States than in England. For example, at age 50, the loss in average after-lifetime in the United States in 1920 was 1.9 years, as against only 1.6 years in England and Wales, 1919-1923.

So far reference has been made only to males, because our comparison with the English data is necessarily restricted to that sex. In the data for the United States we have the requisite material for a comparison of the two sexes. This comparison presents certain points of interest, as is most readily seen by consulting the graphs in the lower two panels of the chart. It is quite characteristic that the curves for males and for females start at essentially the same level; among young children there is little or no sex differentiation as regards the curtailment of life by tuberculosis (all forms). But as age advances the curve for females separates from that for males, and the excess in the number of years of life lost from tuberculosis by males is particularly pronounced in and about midlife. At age 32, in 1920, the years of life lost among white males was 1.19 years; among white females, .88. In the year 1930, the corresponding figures were white males, .76 years; white females, .51 years.

Great as the gains have been in the last two decades in controlling the ravages of tuberculosis, it is still a sizable factor in curtailing life expectation among men at the ages of life when they are still productive and carrying family responsibilities. It will be interesting to see how much the loss in remaining after-lifetime will be reduced by 1940.

Mortality Experience of the First Six Months of 1933

THE health record of American and Canadian wage-earners and their families during the first half of 1933 has seldom been excelled during the like part of any past year. It is true that the 1933 year-to-date deathrate is 3.3 per cent. higher than at this time last year, but 1932 was the best health year of all time for the wage-earning populations of the two countries. The half-year rate of 1921 was also slightly below the 1933 figure; but aside from these years, and 1930 when the rate was identical with that of 1933, the health record for the current year has never been excelled nor equaled. The following table shows the facts beginning with 1920 for Metropolitan Industrial policyholders.

Deathrates per 1,000 for All Causes of Death.
Metropolitan Life Insurance Company. Industrial Department.
First Six Months—1920 to 1933 Compared

YEAR	DEATHRATE PER 1,000	YEAR	DEATHRATE PER 1,000
1920	11.9	1927	9.6
1921	9.3	1928	9.9
1922	9.9	1929	10.5
1923	10.3	1930	9.4
1924	9.8	1931	9.5
1925	9.8	1932	9.1
1926	10.5	1933	9.4*

*Provisional rate

A New Low Deathrate Among Insured Canadians

Among insured Canadians the 1933 January-June period recorded a new minimal deathrate for this part of the year, that is, 7.7 per 1,000. The previous low point was 8.1, registered for the first half of 1932. Further comment on the Canadian health record appears elsewhere in this BULLETIN.

The 1933 Record for White and Colored Policyholders

Among white Industrial policyholders the deathrate has increased 3.8 per cent., as compared with that for the like period of last year. The insured negroes have made a better record, as the increase for them was only 1 per cent. When comparison is made with the record for two years ago, the mortality rates for white persons are found to be practically identical; among negroes, on the other hand, there has been a drop of 6.8 per cent.

Causes of Death Which Have Increased

The rise in the deathrate, as compared with that for 1932, is charge-

able almost entirely to increased mortality from six diseases, namely, influenza, cancer, diabetes, cerebral hemorrhage, chronic nephritis—and, more particularly, heart disease. Three of these—cancer, diabetes and heart disease—have been showing a steady upward tendency in their mortality for years. With only one-half of the current year passed, no doubt remains that the end of 1933 will see new maxima registered for each of these three causes of death. The cancer mortality rate for the half-year stands 5.1 per cent. higher than the previous maximum, while the figures for diabetes and heart disease, respectively, are 10.4 per cent. and 9.3 per cent. higher than ever before recorded.

The 1933 increase in cancer mortality has affected only the white policyholders, but diabetes and cardiac diseases have taken increased toll among both the white and negro insured. The rise this year in deaths from influenza is due entirely to the widespread prevalence of that disease during the early winter months. This situation has definitely cleared up, since, beginning with March, the influenza deathrate for each month has been lower than in the corresponding month of 1932. There has also been a rise in the mortality from respiratory diseases other than pneumonia, and there has been a negligible increase in fatal accidents.

Where the Rate Has Dropped

Very considerable declines in the mortality from tuberculosis and pneumonia are the most important items on the favorable side of the 1933 health record, to date. For tuberculosis the drop has brought the cumulative deathrate down to 69.7 per 100,000, a decrease of 6.6 per cent. from the previous minimum. The experience of prior years has led us to expect that the tuberculosis deathrate at the end of the year will be at least five points below that in evidence at the close of the first half. In that event, we shall record a mortality rate for tuberculosis of less than 65 per 100,000 for the year 1933. This figure would mark a drop of 38 per cent. in ten years. Comparison with the tuberculosis deathrate of insured negroes ten years ago with that of today shows a decline of 24 per cent.; for white Industrial policyholders the far greater drop of 43 per cent. has been registered.

The diphtheria deathrate has dropped over 45 per cent. from the previous minimum—recorded last year. The mortality from diphtheria is fast approaching what is practically the vanishing point. If the current rate of decline persists throughout this year—and next—the rate will drop, by 1935, to less than unity. All four of the principal communicable diseases of childhood are recording lower mortality rates than during the first half of 1932.

A 3.2 per cent. decrease in the pneumonia deathrate is a remarkable development of the year. In the first place, it marks a new minimum for pneumonia during any January–June period; but even a

more noteworthy feature is that there should have been any decline, however slight, in pneumonia during a period marked by a 30 per cent. rise in deaths from influenza.

Diarrheal complaints and puerperal conditions are the other diseases which show lower deathrates this year than ever before. Both may reflect the declining birthrate.

Deathrates per 100,000 Persons Exposed. First Six Months of 1931, 1932, 1933 Compared. By Color for Principal Causes of Death. All Ages. Metropolitan Life Insurance Company, Weekly Premium-Paying Industrial Business

Causes of Death	Deathrate per 100,000 Persons Exposed					
	White			Colored		
	Jan.-June 1933*	Jan.-June 1932	Jan.-June 1931	Jan.-June 1933*	Jan.-June 1932	Jan.-June 1931
Total—All Causes	864.7	833.1	861.3	1564.2	1549.4	1677.6
Typhoid fever	.7	1.1	1.1	1.8	2.3	2.6
Measles	2.7	3.0	5.2	.9	1.4	2.8
Scarlet fever	4.0	4.2	4.3	1.3	1.6	1.8
Whooping cough	2.4	3.6	3.7	1.7	4.5	3.8
Diphtheria	2.5	4.7	5.0	1.0	2.3	2.4
Influenza	30.0	22.3	28.1	62.3	54.5	81.3
Meningococcus meningitis	1.5	1.4	2.5	2.4	2.0	9.1
Tuberculosis (All forms)	55.4	58.4	62.3	186.6	206.5	234.1
Tuberculosis of respiratory system	49.4	51.3	55.0	165.9	183.4	207.7
Tuberculosis of the meninges, etc.	2.4	2.9	3.1	4.8	5.2	5.9
Other forms of tuberculosis	3.6	4.1	4.2	15.9	17.9	20.6
Cancer (All forms)	94.5	89.0	82.6	98.8	101.6	88.8
Diabetes mellitus	26.2	23.6	22.2	30.3	28.1	26.5
Alcoholism	2.3	2.7	3.0	2.4	3.8	3.8
Cerebral hemorrhage; apoplexy	62.3	57.9	56.5	131.6	134.9	135.8
Diseases of heart†	166.2	153.3	148.8	296.3	262.0	273.9
Total respiratory system	85.7	86.2	105.5	151.5	165.9	207.1
Bronchitis	3.0	2.8	3.6	4.5	4.7	4.8
Bronchopneumonia	30.8	30.5	39.6	41.1	41.5	56.0
Pneumonia (lobar and undefined)	44.2	45.9	54.4	94.6	107.8	133.1
Other diseases of resp'y system	7.7	7.1	8.0	11.3	12.0	13.1
Diarrhea and enteritis	8.0	8.3	10.0	7.7	7.6	12.1
Under 2 years	5.9	6.4	7.8	3.1	3.1	5.0
2 years and over	2.1	2.0	2.1	4.6	4.6	7.1
Acute nephritis	2.5	3.1	3.8	11.0	10.3	13.1
Chronic nephritis (Bright's disease)	64.0	63.2	62.7	146.9	142.8	143.3
Puerperal state—Total	9.8	10.2	11.1	15.9	16.7	18.3
Total external causes	64.8	65.4	67.6	103.9	96.0	102.6
Suicides	10.7	11.4	10.4	9.3	8.2	6.1
Homicides	3.2	3.2	3.7	30.3	31.4	29.8
Accidents—Total	50.9	50.8	53.6	64.3	56.5	66.7
Automobile accidents	17.6	17.7	18.9	19.2	19.1	22.2
All other diseases and conditions	179.1	171.6	175.4	309.9	304.4	314.4

*The rates for 1933 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis, acute myocarditis and angina pectoris.

Fewer Suicides

The well-defined improvement in economic conditions in the last few months has been reflected in a 4.5 per cent. drop in the suicide rate of American and Canadian wage-earners. The change in the trend has been particularly noticeable in May and June. The suicide rate in January was 28 per cent. above that for the same month in 1932; at the close of the first quarter, the unfavorable margin had dropped to 10 per cent.; after four months, to less than four per cent.; after five months the cumulative deathrates for 1933 and 1932 were identical; and the close of the half year has actually marked the 4.5 per cent. decrease in the suicide deathrate noted above. The suicide rate has increased, however, among the colored policyholders this year. This follows another large rise in 1932.

Automobile Fatalities

Last year and during the early months of 1933, we called attention to declines in the automobile fatality deathrate, suggesting, at the same time, that the drop might be in some measure a reflex of the decrease in cars in operation. The developments of recent months concurrent with improving economic conditions appear to sustain this viewpoint. At any rate the January, 1933, deathrate for automobile accidents among insured wage-earners was nearly 17 per cent. below that for January, 1932; by the end of March the drop had been reduced to 3.8 per cent.; it now stands at only six-tenths of one per cent. over that for 1932.

The table on page 7 presents the deathrates among white and colored Industrial policyholders, respectively, for the first six months of 1933, 1932 and 1931.

Where and How Men Get Hurt

THE chance of accident to the man on the street is less than is generally supposed. Out of an aggregate number of 117,477 injuries studied by the Accident and Health Department of the Metropolitan Life Insurance Company, there were only 9,078, or 7.7 per cent. of the total, that happened while walking on streets and highways. The public travel accident hazard is of even less importance; for only 2.2 per cent. of the injuries happened on buses, taxicabs, street cars, trains, boats, airplanes and other public conveyances. These figures relate to a group of persons who are employed in non-hazardous occupations and whose ages range between 18 and 65 years.

The vast majority of accidents occur in places which the average man seldom associates with danger —at home, in offices, in stores and in sports and games. Out of more than 117,000 injuries that were studied, close to 17,000 occurred in homes or on home premises; another 40,000 occurred within the apparently safe confines of office buildings, hotels, stores, clubs, and other public structures. Altogether, 49 per cent.

of all the accidents occurred inside of buildings or in private grounds where people might feel that they were comparatively safe from harm. Then, there were nearly 13,000 accidents, or 11 per cent. of the total, that occurred in the common games and sports that are indulged in by the average man. These include such supposedly harmless sports as tennis, golf, skating, and even dancing. Over 25,000 injuries, or 21 per cent. of the total, occurred to persons riding in privately owned automobiles. The main causes of these automobile accidents were collisions with other cars, skidding, and caring for the automobiles.

A considerable number of the injuries were sustained in very ordinary ways. First, missteps and falls caused nearly one-third of the total injuries. These occurred most commonly on sidewalks, on stairs, over rugs and over other objects on floors. Getting in or out of bed is hardly to be considered a dangerous activity; and yet 76 men fell and were injured in this manner. The ordinary bathtub or shower, which in the past was accused of many casualties, accounted for only 557, or less than one-half of one per cent. The second important group of injuries were from broken glass, nails, other sharp instruments, and splinters. These

Analysis of 117,477 Accidents to Men Aged 18 to 65 Years. Metropolitan Life Insurance Company 1929-1932

Description of Accident	Number of Injuries	Per Cent. of Total
Total	117,477	100.0
Slips and falls	37,127	31.6
Injured by vehicles	19,807	16.9
Burns, explosions	4,215	3.6
Injured by firearms	446	.4
Injured by broken glass, nails, sharp instruments, splinters	20,952	17.8
Dust and cinders in eye	1,649	1.4
Injured by animals	1,449	1.2
Collisions with other persons or objects	8,418	7.2
Handling, lifting or carrying objects	2,782	2.4
Struck by falling or flying objects	8,939	7.6
Caught in doors and windows	4,009	3.4
Hand tools and machinery	1,797	1.5
All others	5,887	5.0
Place of Accident		
Total	117,477	100.0
Buildings, other than homes	40,475	34.5
Private automobiles	25,119	21.4
Home or home premises	16,837	14.3
Games and recreation	12,719	10.8
Walking on streets and highways	9,078	7.7
Trains, cars, buses, boats, etc	2,595	2.2
Other places	10,654	9.1

make up 18 per cent. of the total. Third in order of importance, with 17 per cent. of the total, were injuries by vehicles. In this class the automobile is the chief offender. Together, these three broad classes of injuries accounted for 66 per cent. of the total. The remaining 34 per cent. were due to being struck by falling or flying objects, to colliding with other persons or objects, to burns or explosions, to being caught in doors and windows and to a variety of other happenings as shown in the table on page 9.

Injuries are, for the most part, due to trivial and minor mishaps which can readily be avoided. In the aggregate, however, these preventable accidents cause an immense amount of discomfort, as well as the waste of huge sums of money because of time lost from work and the cost of medical care.

A Promising Health Year for Canada

In the April, 1933 issue of the Statistical Bulletin, attention was directed to the excellent health record of the year 1932 among nearly one and one-quarter million Metropolitan Industrial policyholders residing in Canada. Their deathrate in that year, like that of the insured in America, was lower than ever before.

Data now available for the first half of 1933 show that the mortality rate of the Canadian wage-earning population (of which these policyholders form a large and representative cross-section) is even lower than last year. In other words, the prospect of registering a new minimal deathrate in Canada, in 1933, is excellent. Furthermore, with respect to improvement over all former years, the Canadians are making a better record this year than are the American policyholders; for the deathrate of the latter is running about three and a half per cent. higher than that for the like part of last year. The table on page 11, which exhibits the deathrates for Canadian policyholders during the first six months of every year, over a ten-year period, shows the progress that has been made.

The deathrate for all causes combined is 4.6 per cent. lower than for the first half of the previous year. The reductions from previous low points for diseases of major interest are as follows: Diphtheria, 57 per cent.; tuberculosis, 1.6 per cent.; diarrheal conditions, 17 per cent.; typhoid fever,* 57 per cent.; and measles,* 12 per cent.

There are a number of decided contrasts in the course of the deathrates from important diseases, this year, in Canada and in the United States. For example, the mortality from diabetes, which had been steadily rising in both countries for years, has recorded a considerable drop in Canada; in the United States

*The declines for these diseases have not been continuous, as the previous minimum for typhoid fever was recorded in 1930 and that for measles in 1931.

Deathrates per 100,000 for Principal Causes. Metropolitan Life Insurance Company. Weekly Premium-Paying Business in Industrial Department. Canadian Head Office. First Six Months 1924 to 1933 Compared

Causes of Death	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924
Total—All Causes	770.2	807.6	842.6	918.3	1006.5	922.5	949.5	974.2	894.5	939.3
Typhoid fever	1.5	4.3	4.9	3.5	4.7	5.8	37.9	5.2	7.1	6.9
Measles	3.7	7.8	4.2	11.9	9.3	8.9	16.4	11.9	9.6	15.7
Scarlet fever	4.4	4.0	6.2	6.2	8.8	8.2	8.7	7.7	10.2	17.6
Whooping cough	8.2	5.7	14.7	14.7	11.0	9.6	17.6	17.9	13.1	11.1
Diphtheria	4.2	9.7	11.1	15.2	23.1	21.6	23.5	15.4	22.5	28.3
Influenza	40.6	35.2	41.7	25.2	96.9	36.9	32.9	68.6	34.7	28.1
Tuberculosis (All forms)	88.7	90.1	97.4	102.6	100.7	105.3	113.0	110.0	112.7	127.1
Tuberculosis of resp'y system	73.9	72.0	76.3	77.5	81.2	86.2	94.5	88.8	94.5	107.0
Cancer (All forms)	77.7	76.1	72.2	61.5	62.6	62.2	57.9	55.0	57.4	53.2
Diabetes mellitus	12.6	16.1	11.8	9.5	9.6	11.0	8.7	8.5	7.3	8.1
Cerebral hemorrhage; apoplexy	41.5	43.1	40.2	42.8	32.9†	32.1†	31.5†	30.0†	33.5†	33.4†
Diseases of heart*	93.3	93.4	90.5	86.7	92.6	86.7	89.2	96.5	83.1	78.9
Pneumonia (All forms)	68.6	67.1	99.3	124.5	147.0	117.1	107.9	141.7	111.7	120.7
Other respiratory diseases	15.9	20.7	17.9	25.7	32.6	35.7	29.5	27.9	27.4	25.9
Diarrhea and enteritis	26.9	32.4	38.0	44.5	48.9	55.0	48.3	53.6	51.6	57.7
Chronic nephritis (Bright's disease)	46.8	41.6	40.3	36.1	39.1	43.4	34.8	42.5	34.5	36.9
Puerperal state—Total	13.5	12.8	16.4	14.0	15.7	18.2	20.8	18.6	17.4	22.3
Suicides	3.7	3.3	3.9	3.2	4.2	2.7	3.6	2.5	2.7	2.4
Homicides	.2	.9	.7	1.2	.5	.7	.4	.2	.4	1.5
Accidents—Total	32.9	37.1	37.5	39.4	38.6	43.8	45.3	32.3	38.2	33.4
Automobile accidents	6.8	8.1	14.5	8.0	8.6	5.8	4.3	2.7	4.1	3.2
All other causes	185.4	206.2	193.8	249.8	227.6	217.4	221.8	228.4	219.7	230.1

*Excludes pericarditis, acute endocarditis, acute myocarditis and angina pectoris.
†Rates not strictly comparable with those for later years, due to changes in classification procedure.

the marked upward trend is still persisting. The heart disease deathrate is unchanged this year in Canada, whereas in the United States cardiac conditions have been responsible for many more deaths than in the like part of 1932. The cancer mortality rate has risen only negligibly in Canada; but it has gone up appreciably in the United States. Deaths from pneumonia, on the other hand, have increased a little in Canada as compared with a pronounced drop in the United States—to a new low point. We are unable at this writing, to advance any suggestion as to the causes underlying these differences except that they may be due, in some measure, to the differences in the relative age distributions of the groups of insured persons in the United States and Canada.

All in all, it is obvious that health conditions among insured wage-earners in Canada are more than satisfactory; and that the very marked progress made during 1931 and 1932 is still going on.

Health Record for June

THE deathrate among Metropolitan policyholders in June increased to the highest point recorded, for this month, since 1928. It was higher by three per cent. than the figure for June of last year, when there were fewer deaths from cancer, heart disease and chronic nephritis. The rise in the deathrate, in both May and June, this year, does nor conform to the experience of most previous years. Ordinarily a seasonal decline during these months. Nevertheless, prevailing health conditions remain good. The deathrate from the preventable diseases remains at a low point.

The deathrate in the large cities of the United States, for June, was 10.6 per 1,000 estimated population as compared with 10.8 in May, 1933, and 10.4 in June, 1932. With respect to notifiable diseases, this year's June record is remarkably favorable, inasmuch as the only ones for which increased incidence was reported, as compared with May, were poliomyelitis and typhoid fever. Typhoid fever was the only reportable disease to increase, as compared with June of last year. Although showing the usual seasonal increase, the incidence of poliomyelitis remained low during June, only 92 cases being reported from 45 states, as compared with 76 cases in May. Reports from 45 states show a decline in smallpox cases from 599 in May to 506 in June. The only disturbing report was that from Texas, where cases increased from 86 in May to 123 in June.

The following items are of special public health interest. The UNITED STATES PUBLIC HEALTH SERVICE is about to build a new quarantine station at Port Townsend, Washington. The site was donated to the government by the town. ST. MARY'S COUNTY, MARYLAND is now functioning as a full-time health unit, leaving only one county in the state operating as a part-time unit. Ninety-eight per cent. of the total population of Maryland counties now have full-time health service, according to the MARYLAND STATE DEPARTMENT OF HEALTH. A plan to provide medical care for the "middle class" population has been evolved by the WAYNE COUNTY, MICHIGAN, MEDICAL SOCIETY. Complete diagnostic facilities will be available to every worthy patient at a cost directly proportionate to his ability to pay. The project offers the advantages of a well-organized type of group practice. The Society will become an active staff, caring for patients in this class, with its headquarters serving as a coordinating center for those who cannot afford complete diagnostic service at customary rates. In Arizona, a state-wide educational campaign is planned to teach the causes, care and avoidance of common diseases. Efforts will be made to improve the reporting of venereal diseases. Furthermore, a new form of death certificate is planned, containing a statement of length of residence in the state, before death, and of the

duration of the disease causing death. It will thus be possible to furnish statistics on the incidence of diseases originating in the state.

According to press reports, more than $2,000,000 has been bequeathed to the UNIVERSITY OF CHICAGO for the establishment and maintenance of a free dental dispensary. Other benefactions include $10,000 each to the CENTRAL FREE DISPENSARY and to the HOME FOR DESTITUTE AND CRIPPLED CHILDREN, and $5,000 to the CHICAGO HOME FOR INCURABLES. The State of Massachusetts, on June 12th, opened a week's campaign of education to reduce deaths from appendicitis. The STATE DEPARTMENT OF HEALTH, The STATE PHARMACEUTICAL ASSOCIATION, the BOSTON RETAIL DRUGGISTS ASSOCIATION and the Public Health Committee of the MASSACHUSETTS MEDICAL SOCIETY are cooperating in the campaign. The *Journal of the American Medical Association* announces that the UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE in New York City has established a department of forensic medicine. It is considered an initial step toward the establishment of a system of scientific crime detection in this country to correspond with the system of medico-legal institutes in Continental Europe. Fourth year medical students will be given a short course in what constitutes medical examiners' cases, proper signing of death certificates and court testimony. Provision is also made for an optional laboratory course in the medical examiner's office assisting at necropsies. The WEST VIRGINIA HEART ASSOCIATION has been recently organized. This association will gather and disseminate information on the prevention and care of heart disease and will develop and apply a uniform classification of heart disorders. It is expected that this West Virginia organization will ultimately affiliate with the AMERICAN HEART ASSOCIATION.

Expenditures of the UNITED STATES PUBLIC HEALTH SERVICE for the fiscal year beginning July first, will be reduced by more than $2,500,000 from the amount originally appropriated by Congress, $10,380,000. Essential activities of the Service will be maintained, although some will be curtailed. Quarantine and immigration activities in foreign countries have been reduced with the discharge of ten American physicians stationed outside the United States. Those who remain suffered reductions in compensation, as did most of the 700 acting assistant surgeons on part-time service within the United States. The appropriation for marine hospitals and field relief stations was reduced by more than a million dollars. Financial aid to county health units in 28 states will be discontinued. It is reported that some of these units will be maintained by the counties and states; many will probably be abandoned.

Detroit won first prize for health conservation, among cities of more than 500,000 population, in the annual Health Conservation Contest

conducted by the UNITED STATES CHAMBER OF COMMERCE. Winners in other population groups were: Cincinnati, among cities from 250,000 to 500,000; East Orange, among those of 50,000 to 100,000; Brookline, Massachusetts, 20,000 to 50,000; and Lodi, California, under 20,000. Syracuse, New York, and New Haven, Connecticut, tied among cities from 100,000 to 250,000.

Investigations under the auspices of the LEONARD WOOD MEMORIAL FOUNDATION FOR THE ERADICATION OF LEPROSY will begin during the year, with research in the Philippines leper colonies. The Foundation has an endowment of $2,000,000, subscribed through the pledges of 50,000 persons. With this aid, a journal of leprosy is to be published by the INTERNATIONAL LEPROSY ASSOCIATION.

A conference to discuss methods of combating disease by antisepsis was held recently at Baltimore under the sponsorship of Johns Hopkins University. A large number of bacteriologists, chemists and physicians attended. Worcester, Massachusetts, has inaugurated a determined campaign to lower its diphtheria death-rate. Immunization clinics are to be a feature of a two-months' drive to stamp out the disease. As a measure to prevent the spread of rabies, the Health Department of Pierce County, Washington, has ordered that every dog in the County be inoculated against the disease.

The following table shows the mortality among Industrial policyholders for June, 1933; May, 1933, and June, 1932, together with the cumulative rates for the first six months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. All Ages (Annual Basis).*

MONTHS OF JUNE, 1933; MAY, 1933, AND JUNE, 1932

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	June 1933	May 1933	June 1932	Cumulative January-June	
				1933	1932
TOTAL—ALL CAUSES	902.6	881.9	875.9	941.1	911.3
Typhoid fever	.9	.8	1.9	.8	1.2
Measles	2.2	3.4	2.2	2.5	2.8
Scarlet fever	2.8	3.7	2.9	3.7	3.9
Whooping cough	2.1	1.6	3.2	2.3	3.7
Diphtheria	2.3	1.1	2.4	2.4	4.4
Influenza	7.1	11.7	9.7	33.5	25.8
Tuberculosis (All forms)	72.4	70.4	78.4	69.7	74.6
Tuberculosis of respiratory system	64.1	61.0	68.0	62.1	65.8
Cancer (All forms)	102.3	93.3	95.4	95.0	90.4
Diabetes mellitus	24.4	22.6	23.2	26.6	24.1
Cerebral hemorrhage; apoplexy	65.1	68.7	65.0	69.8	66.3
Diseases of heart†	168.2	169.9	158.7	180.4	165.1
Pneumonia (All forms)	47.7	62.6	54.5	81.6	84.3
Other respiratory diseases	9.6	10.9	9.6	11.3	10.6
Diarrhea and enteritis	11.5	7.9	9.5	8.0	8.3
Chronic nephritis (Bright's disease)	75.3	69.0	68.9	73.0	71.9
Puerperal state—total	9.0	10.7	9.8	10.5	*10.9
Suicides	10.2	10.2	12.8	10.6	11.1
Homicides	7.1	5.8	6.6	6.1	6.2
Accidents—total	66.6	51.0	62.4	52.4	51.4
Automobile accidents	21.2	18.3	20.0	17.7	17.8
All other diseases and conditions	215.8	206.5	199.0	200.7	194.3

*The rates for 1933 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis, acute myocarditis and angina pectoris.

Correspondence on the subjects discussed in these BULLETINS may be addressed to: The Editor,

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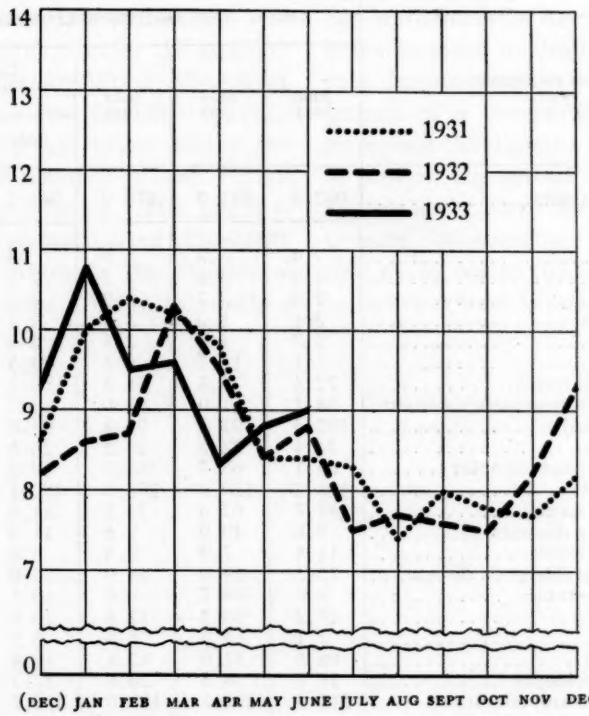
DEATHRATES FROM ALL CAUSES

in the Metropolitan Life Insurance Company
Industrial Department

DEATHRATE PER 1,000—ANNUAL BASIS



1931	10.0	10.4	10.2	9.8	8.4	8.4	8.3	7.4	8.0	7.8	7.7	8.2
1932	8.6	8.7	10.3	9.5	8.4	8.8	7.5	7.7	7.6	7.5	8.2	9.3
1933*	10.8	9.5	9.6	8.3	8.8	9.0						

**Rates for 1933 are provisional.*

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